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**Social Networking in the Online Classroom:
Foundations of Effective Online Learning**

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Introduction

Quality education in the *traditional, face-to-face setting* depends on interaction among students and faculty. As [Sarason \(1974\)](#) and [McMillan and Chavis \(1986\)](#) explain, learning is, first and foremost, an interactive, communal activity. In fact, students who feel socially connected to other students and faculty report higher levels of learning than those who report being less connected ([Richmond, Gorham, & McCroskey, 1987](#)). What these researchers have discovered is that optimal learning outcomes are directly tied to the establishment of social networks among participants engaged in a collaborative learning enterprise. Put another way, dialogue is the lifeblood of effective learning.

Interaction and community among students in the *online setting* is no less important to successful learning outcomes than in the face-to-face setting ([Gunawardena, 1994](#); [Wegerif, 1998](#)). Researchers have found the same relationship between students' sense of community or connectedness and the positive achievement of learning outcomes in the online setting ([LaRose & Whitten, 2000](#)). But in the online setting, experiencing communal interaction or social networking is somewhat more challenging. For despite advances in audio and video streaming technology, online learning remains primarily a textual exchange between time-independent/place-independent learners. The challenge for online facilitators in this context becomes: "How, then, do we adapt a series of threaded texts to make them build a socially interactive, diverse network of learners who experience a positive sense of community?"

In an attempt to address the question above, the authors will present and discuss several online and offline community-building strategies that may be used to build social networks in online courses. Before presenting such strategies, we'll begin by defining the concept of *communal scaffolding*. Scaffolding, although common currency in education, has yet to be applied extensively to distance education environs ([cf. Kim, 1998](#)). Scaffolding will be presented herein as a way to conceptualize and apply the idea of social networking to online learning. More specifically, by drawing on existing theoretical frameworks of social and cognitive learning in web-based environs, the scaffold helps to set practical guidelines for fostering a supportive social network. In so doing, the scaffold functions as the structural base around which pre-existing literature related to community building may be brought together for closer analysis.

Social Networking within the Communal Scaffold

The scaffolding concept was first used in education to explain how knowledge is transferred from cognitive to practical applications ([Greenfield, 1984](#); [Harley, 1993](#)). In such instances the scaffold was used to help visualize how instructors might bridge the gap between task requirements and skill levels. But when we talk about "communal" scaffolding here, we are referring to bridging the gap of another kind--the gap between the task (cognitive, intellectual) and interpersonal (social, interpersonal) requirements of online learning.

The idea of the communal scaffold as it applies to online learning is built upon

several key assumptions. The first assumption is that the "distance" in distance education is pedagogical and social, not geographical, and that this separation between instructor and learner in a classroom environment may be overcome through effective dialogue and instructional design (Moore & Kearsley, 1996, pp. 199-203). The second assumption is that the process of communication is at the center of any learning experience, whether face-to-face or online. As Hurt (1978) and colleagues explain, "there is a difference between knowing and teaching and that difference is communication in the classroom" (p. 3). Finally, communal scaffolding recognizes that successful online learning must structure social support if learners are to be optimally challenged academically to maximize learning benefits. In other words, the stronger, more secure, and better built your scaffold, the more "robust" your social dynamic will be (Calderwood, 1999). More robust social dynamics, in turn, lead to more positive learning environments.

Figure 1 below graphically depicts how the communal scaffold facilitates interconnectedness and shared responsibility for learning outcomes, and how the cognitive and affective aspects of online learning as described above may interact to produce optimal results in the cyber classroom.

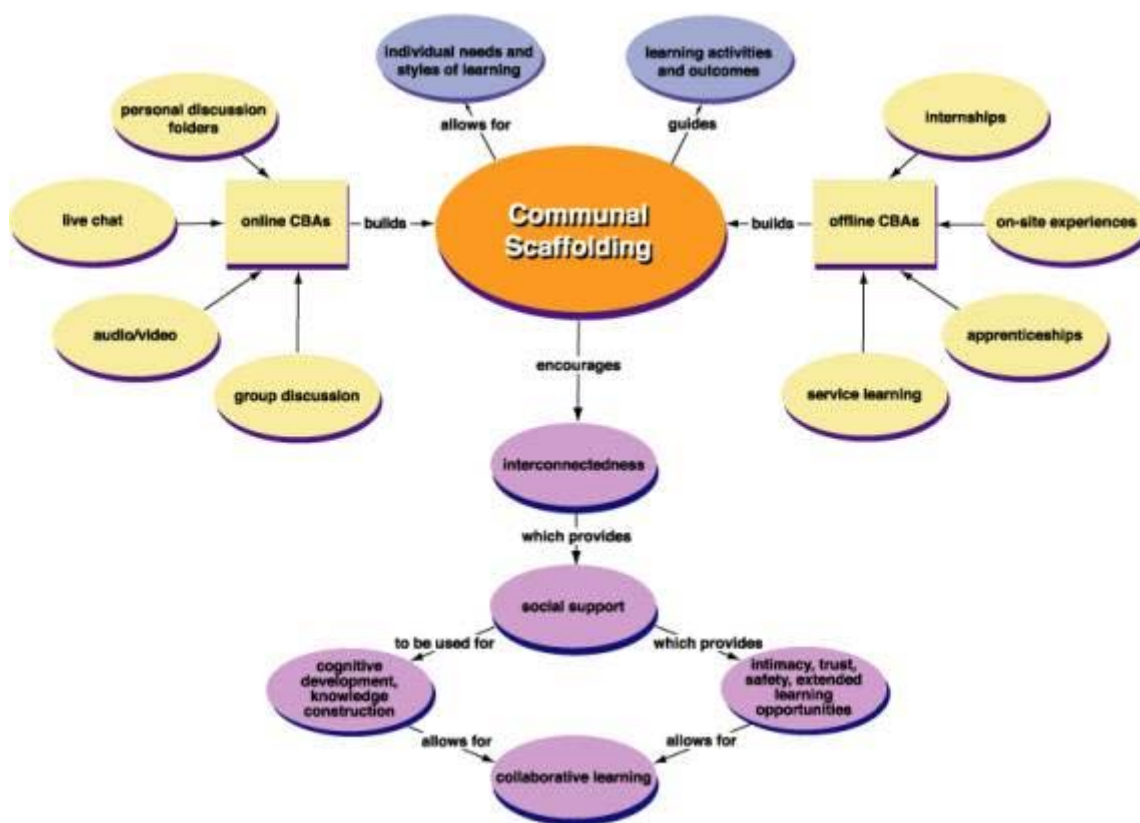


Fig 1. The Communal Scaffold

The diagram illustrates the point, argued further below, that connectedness is

the epicenter, or cohering point, for any successful online endeavor. Scaffolding provides support for the learning endeavor, which adds an element of safety to the project and provides a place for the "workers," that is, students and instructor, to stand. When students, in turn, feel the sense of intimacy, belonging, and safety that the scaffolding provides (Kim, 1998, 2000), there are more opportunities for collaboration and other activities where knowledge may be constructed.

Possible sources of immediacy in this setting include interactions between teacher and students (teacher immediacy) and interaction between students (student immediacy). In each instance, learning may be motivated through social rewards, for example, by showing interest in the student. As such, social networking within the scaffold encourages and reinforces cognitive development (knowledge construction) in the context of social connection and facilitation. In so doing, the scaffold draws on LaRose and Whitten's (2000) Social Cognitive Theory, which provides a framework to develop a unified construct of instructional immediacy for web-based courses (p. 336).

LaRose and Whitten (2000) sought to create a model for web-based learning that incorporated not only teacher and student immediacy, but also computer immediacy. Within this social cognitive framework, they concluded that there are three possible sources of immediacy in web-based classrooms that may create feelings of closeness among participants:

- (1) the interactions between teacher and students (teacher immediacy);
- (2) interactions between students (student immediacy); and
- (3) interactions with the computer system that delivers the course (computer immediacy).

Collectively, these sources constitute instructional immediacy (p. 336).

LaRose and Whitten found that learning could be motivated through social incentives (e.g., approval for good behavior, expressions of interest in the student) or status incentives that recognize or otherwise enhance learners' status. The "immediacy mechanism is enactive if it results from the interaction between a specific individual learner and one of the other agencies present in the classroom. Immediacy is vicarious if it operates through the observation of other learners as they interact" (p. 336).

Finally, the communal scaffold gives instructors a "heightened" view, or "birds-eye" look at the online classroom. Multiple interpersonal connections with individual learners and groups of learners, whether the result of direct participation in or indirect (vicarious) observation of social activities (to be described in detail below), lets instructors isolate individualize needs and customize communication to address a range of learning styles and socio-cultural variables. Instructors can "scale the heights" of the classroom on the support provided by student self-disclosure, personal experience, and interpersonal reciprocity to determine special needs that may be present among learners. In this way, the communal scaffold functions as a diagnostic tool that

helps instructors assess learner capabilities and/or disabilities.

Now that the scaffolding model has been presented in the context of community building in an online educational environment, the next sections focus on how to actually build it using various online and offline strategies. We call these basic communication tools **Community Building Activities** (CBAs). They are reliable, easy-to-incorporate strategies with observable benefits that are common fare in most online learning environments.

Online Strategies for Communal Scaffolding

(1) Personal Discussion Folders

Personal discussion folders are gathering places created within web-based educational platforms where personalized threaded discussions between participants in online courses may occur. Instructors are encouraged to begin their online experience by creating a place for students to create a personal profile or "electronic personality" (Pratt, 1996, pp. 119-120) and build an initial sense of "community" or togetherness (Woods & Ebersole, 2003). These places might be titled "Autobiographies" or "Introductions." In any case, they are places where inferences or "impressions" about another learner's personality, traits and values may be formed. Personal discussion folders let students reduce uncertainty and process social information about others by asking questions in a primarily textual setting where the number of communication cues (both verbal and nonverbal) is greatly reduced (Walther & Burgoon, 1992). Students can take advantage of this cue reduction as well as the asynchronous nature of computer-mediated communication--which includes the extended time to compose messages and the ability to edit them before transmission--and create optimal presentations of "self" in ways that suit them (Walther, 1996). This occurs not only in socially-oriented online activities, but also in decision-making groups and business communication. The hyperpersonal communication perspective was born out of the realization that given the nature of online interaction, participants over time could actually exceed the level of affection and emotion of parallel face-to-face interaction (Walther & Burgoon, 1992, p. 17).

Hancock and Dunham's (2001) Information Processing Theory explains the type of communication that may occur in these personal discussion folders and how they might help to build social networks among learners. Hancock and Dunham observe that impression formation occurs in computer-mediated communication (CMC) in much the same way as it occurs in face-to-face communication. Results of their study indicated that impressions formed in CMC environments were less detailed but stronger than those formed as a result of face-to-face interactions. Impressions may be stronger, according to Pratt and colleagues (1999), because CMC participants ask more questions aimed at getting at the "inner self" of the other person than participants in face-to-face interactions. Thus, online students interacting through personal discussion folders may eventually develop stronger reactions to others, even though those reactions are based on a relatively small amount of information and may take a slightly longer time to form.

(2) Immediacy

Immediacy refers to the extent to which selected verbal and nonverbal communication behaviors enhance intimacy in interpersonal communication ([Mehrabian, 1969](#)) and "reduce perceived distance between people" ([Thweatt & McCroskey, 1996, p. 198](#)). Several studies demonstrate the power of instructor immediacy in creating a greater sense of classroom community among learners. To some degree, each of the online CBAs in this section is designed to foster a certain level of immediacy among participants in the online classroom.

Responding to email or threaded discussion in a timely manner is one way to be immediate. In one study, instructor immediacy in feedback was the strongest predictor of learning--both affective and cognitive learning--among students ([Baker, 2000](#)). In another study, "students felt that the lack of immediate feedback in the online portion of the course was discouraging and contributed to their limited participation in the online discussions" ([Vrasidas & Mclsaac, 1999, p. 33](#)). Note that instructor immediacy in response to student communication may even be experienced "vicariously" as learners observe it while interacting with other students in group discussions.

Verbal immediacy behaviors such as asking questions in dialogue or initiating discussion, addressing individual students by name, using personal examples or talking about experiences outside of class ([Gorham, 1988](#)) may be used by online instructors in a variety of formats to increase psychological closeness among learners. Nonverbal immediacy behaviors include tone of voice and inflection and emoticons. Emoticons are graphic accents or textualized icons created by a series of standard keyboard characters combined to produce a picture (e.g., :-)). [Thompson and Foulger \(1996\)](#) found that the use of emoticons reduced reader perception of anger (i.e., flaming) in email messages. [Turkle \(1995\)](#) explained that such keystroke combinations replace nonverbal cues such as physical gestures and facial expressions used in face-to-face settings to foster immediacy ([Andersen, Andersen & Jensen, 1979](#)), thus placing online communication somewhere in between traditional written (textual) and oral communication (p. 183). Indeed, the research has indicated that online communicants compensate for the lack of such nonverbal cues and physical presence by encoding verbal intimacy cues in the textual messages to convey affect (e.g., [Gunawardena, 1994](#); [Gunawardena & Zittle, 1997](#)).

(3) Group Discussion

One of the most basic, but often underestimated, online CBAs used to build connectedness among learners revolves around participation in required group discussion formats. Threaded dialogue can help to build a foundation upon which a more elaborate communal structure or social network can be built. Planned dialogue related to course content introduces students to one another at a cognitive level. Feeling "safe" to express one's views is an important part of building community. Safety is further enhanced by establishing early on in the course rules for appropriate exchanges within required discussion folders.

It is well established that online learners desire both relational and personal

interaction and a learning environment that welcomes alternative or opposing views ([Blum, 1999](#)). Instructors should therefore be careful to observe their "voices" to make sure that they don't shut down or silence opportunities for debate by eliminating alternative ways of viewing the issues at hand. Along the way, instructors must resist the desire to play "expert" or be perceived as the "final word" on any issue. Faculty must become comfortable with playing the part of "provocateur" instead of "academician" ([Parker, 1999, p. 16](#)), concentrating more on leading discussion and promoting collaborative learning and less on lectures and assessment ([Young, 1997](#)).

While it's all right for instructors to critically challenge ideas, it is recommended that they avoid accusatory language or leading questions that indicate their biases. [Gorham \(1988\)](#) found that nonimmediacy behaviors include such items as "criticizes or points out faults in students' work, actions or comments" (p. 44). Instead, effective facilitators use concrete and descriptive language in their replies to students. Effective facilitators also encourage and model personal expression, whether through nicknames, emoticons, or other types of interpersonal communication ([Chenault, 1998](#); [Walther, 1996](#)). Often it is best to begin a reply to a student's post with a positive comment before critically addressing other matters. As noted earlier, using the student's first name is another way to build immediacy and social presence ([e.g., Gorham, 1988](#)) before providing specific feedback or correction.

(4) Live Chat

Scheduling synchronous "virtual office hours" or other times for "live chat" related to course content matters helps instructors to connect with some students in ways that email or voicemail can not. And even though live chat is still a textual exchange, it helps to reduce perceived interaction difficulty and distance associated with time-independent posting and replying ([Arbaugh, 2000](#)). Live chats may even be archived and reviewed by others in the class at a later time.

Moreover, students like the quick response time that live chat provides. It adds strength to the immediacy that mimics real-time conversational give-and-take in face-to-face exchanges. And just as in real-time, face-to-face office sessions, live chats let instructors model a more informal, personal style of textual interaction. This style, in turn, may enhance students' perceptions of instructors being expressive/warm and generally involved--two communication behaviors identified by [Guerrero and Miller \(1998\)](#) as being positively associated with impressions of instructor immediacy, instructor competence and course content.

Lastly, there's a very real sense in which live chat heightens "the degree of salience of the other person in the interaction" ([Short, Williams & Christie, 1976, p. 65](#)). Put another way, live chat may enhance an instructor's co-presence with students in ways that asynchronous discussion can not. Students participating in live chat may perceive the instructor as "more real" than those who don't participate in such communication. As one student in one of our classes remarked, "it's like we're really together even though we're not."

(5) Audio/video

Some instructors have used audio messages (as a supplement to text) as e-mail attachments to build student/faculty relationships and a sense of online community ([Woods & Keeler, 2001](#)). Others include video welcomes, use videocams for live chat sessions, or send personal video clips as email attachments to create intimacy. Audio/video elements can introduce additional communication cues in the online learning process that have been positively associated with immediacy in face-to-face settings. In this sense, using audio and/or video allows instructors to address some of the concerns highlighted by the "cues-filtered-out" perspective, which explains how certain audible (actual words spoken, tone, accents, paralinguistic cues) and visual channels (attire, facial expressions, kinesics and psychophysiological responses) are filtered out in CMC ([Kiesler, Siegel, & McGuire, 1984](#); [Hiltz & Turoff, 1993](#)).

A variation of the audio/video message as email attachment is the PowerPoint slide with recorded narration. Some instructors add personal photographs or other personalized graphics to the slide. As instructors we've found that our tone of voice can be used to set the right mood for future communication. It becomes a perceptual framework through which subsequent communication (whether textual or otherwise) is filtered. Articulation and clarity have been associated with positive impressions of instructor competence and course content ([Guerrero & Miller, 1998](#)).

6) Personalized Email

Another way to connect with students and build social networks is to send personalized email outside of regular class time or required course discussion. Personalized email might be used to encourage a student who made a solid contribution in one of the required discussion fora. Again, as with live chat, personalized email are pro-social behaviors that help to create the impression that we are expressive/warm and generally involved in ways that seem almost "extra-textual," if you will. As instructors, we use personalized email regularly. The messages are usually two to three sentences long and include general words of encouragement, caring or support. Personalized email may even be used to check up on someone who doesn't appear to be as active in discussion as others. One study demonstrated that sending as few as three personal emails throughout the semester can enhance students' sense of online community and overall satisfaction with the online learning experience ([Woods, 2002](#)).

(7) Regular Updates and Feedback

Instructors can send weekly updates with a checklist of items that students can use to guide their time and study. As mentioned above, if instructors include the update on a PowerPoint slide they can add audio narration with little effort. Such updates may even increase students' perceptions of high degrees of faculty interaction. In addition to a few slides that include content review, many instructors often include slides that keep students looking ahead to next week's work. As part of regular updates many instructors even include an occasional

humorous cartoon or illustration related to course content or classroom procedures. Humor has been positively related to instructor immediacy behaviors and the amount and type of humor has been demonstrated to influence learning outcomes ([Gorham & Christophel, 1990](#); [Christensen & Menzel, 1998](#); [Menzel & Carrell, 1999](#); [Comeaux, 1995](#)).

Instructors may also provide detailed feedback on assignments to create immediacy and enhance cognitive learning. [Richmond, McCroskey, Kearney, and Plax \(1987\)](#) found that pro-social behaviors such as immediate reward and teacher feedback were positively associated with cognitive learning. [Hackman and Walker \(1990\)](#) found that "Off-campus students felt as though they learned more when their instructor provided them with specific feedback on individual work through comments on papers, oral discussion or some other means" (p. 202). Instructors may even provide feedback to students about their participation levels ([De Verneil & Berge, 2000](#)) in ways that enhance intimacy and extend learning opportunities.

(8) Private Discussion Places

Instructors who are effective at building social networks create a separate private area for students apart from general class discussion. Some instructors create a "cyber study room" where previously assigned discussion groups can meet apart from required discussion formats for informal chat. This is the same idea as the personal discussion folders mentioned earlier, but for students only. This is a space that the instructor may not enter unless invited. Such private areas--apart from the instructor's watchful eye--allow more opportunities for "hyperpersonal communication" ([Walther, 1997](#)) and relationship-building, which further enhance the robustness of the social network within the online classroom. The Hyperpersonal Communication perspective recognizes "unique affordances of the medium that allow users to achieve more favorable impressions and greater levels of intimacy than those in parallel FtF activities" (p. 348).

Offline Strategies for Communal Scaffolding

Offline efforts to build social networks, when carefully integrated with the learning objectives of the course, can greatly enhance students' experiences. Known variously as experiential learning or contextual learning, constructivist approaches to learning that emphasize practical application and sensory experience ([Gergen, 1995](#); [Salomon & Perkins, 1998](#)) are increasingly being called upon to enhance the text-heavy focus in online learning. Offline strategies provide a balance for students who may become frustrated with what they perceive to be too much "talk about theories" or just "too much talk" in general, textually speaking.

(1) Internships and Apprenticeships

These offline strategies provide opportunities for students to engage in experiential learning while they build relationships with people outside of the classroom setting. The relationships that are formed with colleagues,

professionals and members of the community have value not only from the perspective of social networking, but they can be important connections to the kind of real-world experiences that students need to construct knowledge ([Parks-Dolaz, 1990](#)). Students engaged in community projects or working side-by-side with professionals frequently find the human connection that allows them to wed theory and practice in ways that didn't make sense before.

(2) Service Learning

Although most understand internships and apprenticeships, service learning may be less familiar. Service learning is practical application of knowledge and learning by working on community-based projects ([Loesch-Griffin, Petrides & Pratt, 1995](#)). Frequently associated with volunteer service projects, service learning allows student participants to practice interpersonal relationships and caring for others. This expression of caring, which is demonstrated through practical community service, is a return to the activism of earlier decades, but with a decidedly modern, or should we say postmodern, sensibility. Students might apply their skills and training to solve a problem that might otherwise remain unsolved, and in so doing forge friendships and relationships that enrich their lives ([Weiler, et al., 1998](#); [Root, et al., 2002](#)).

(3) Road Trips, Field Trips and On-site Experiences

A sense of community can often be enhanced by finding a reason to take an online class "on the road." By this we mean that instructors can foster community online by visiting a place or event offline where there is opportunity for practical application of the classroom theory. For instance, we recently took a small group of students to a distant city for a day-long seminar that was being sponsored by a professional organization. The experience of overcoming a common adversity, in this case meeting at 5:45 am in order to get to the seminar by 8 am, and the camaraderie experienced during the 2 hour drive (each way) contributed to the development of relationships. The experience of sharing a meal on the trip home was another opportunity for relationships to be strengthened. Learning experiences from the road trip can later be incorporated in a classroom or online discussion. Specific course discussion areas, for instance, may be created to provide a place for attendees to discuss the experiences they had "on the road."

A variation of this offline CBA can be initiated by students who live outside the instructor's geographic region, which is the usual case for most online students. Students can meet a faculty member or other students at a conference or professional organization. We often notify our students when we will be at a conference in their location. We tell them that we would like to get together for lunch or have them join us at the conference. Some out-of-state students even take the initiative to contact us when they will be in our area for a professional or personal engagement. We go out of our way in those cases to make the F2F meeting happen.

(4) Cohort Groups

Some programs use this strategy during the summer prior to the first fall semester of classes. Online students meet F2F on campus for an intensive two to three week class session in early August. Individuals are assigned to small groups on the basis of personality inventories that are administered shortly after enrollment into the program ([Calderwood, 1999](#)). Students share meals together, attend conferences, work on group assignments, and attend classes together. Students usually report feeling a strong sense of community with others following such meetings. Cohort activities greatly increase retention rates and reports of overall satisfaction with the learning experience. They also serve as an excellent communal foundation that can be built upon by instructors in subsequent online courses ([Imel & Tisdell, 1996](#)).

Another variation of this strategy is a cohort or class meeting within an individual class. In one instance we held a class meeting half way through the semester at a local coffee house. Students in the immediate area (and some as far as two - three hours away) attended the meeting. Upon return to our regularly scheduled online activities, we observed a measurable change in the depth of reflection in posts/replies to our discussion questions. We had fewer late papers and "absences" as well.

(5) Phone Calls

Although this may seem simplistic or obvious to some, online instructors and students often overlook phone calls as a way to overcome the textual dominance of learning in cyberspace. It is surprising what a personal phone call can do to enhance a sense of connectedness. In one distance education study, off-campus students felt as though they learned more when their instructor used phone calls to express caring and provide specific feedback ([Hackman & Walker, 1990](#)).

While the phone might arguably be seen as an "online" strategy (especially in light of growing voice-over-IP services), since it is more personal, more familiar, and less technologically complex than computer-mediated communication, we've chosen to treat it as an "off-line" strategy. Besides, those on the receiving end, regardless of the originators source, will most always be using a traditional hand-held unit. And because phones are important social tools that are part of the American fabric, communication by phone is often perceived as less task-related than, say, email.

Conclusion

So, how do we contribute to the kind of communal infrastructure that builds connectedness and promotes learning in online courses? How do we transform a dialogue of texts into a community of learners characterized by intimacy and interconnectedness? Perhaps the starting place is to recognize that a positive social dynamic requires intentionality--that is, community online just doesn't happen but is created through the intentional use of a variety of verbal and nonverbal communication cues. Or perhaps we begin by recognizing that there are no shortcuts to developing community. In other words, it takes time, and there is no substitute for time spent in communication with others--whether

online or offline. Of course, time alone is insufficient. The time spent with classmates and with the instructor must be structured in such a way that enhances the all-important transfer of intellectual and emotional capital.

The online and offline strategies presented herein are an effort to overcome some of the inherent challenges that face a learning environment comprised primarily of threaded textual exchanges. Online and offline community-building strategies may be used to foster relationships among learners and enhance students' *perception* of faculty-student interaction. Perception of interaction is critical for effective online learning. As [Clow \(1999\)](#), [Phillips and Peters \(1999\)](#), [Roblyer \(1999\)](#) and [Hacker and Wignall \(1997\)](#) demonstrated, a student's *perception* of sufficient interaction with instructors and other students is positively correlated with his level of satisfaction with the overall online learning experience.

While much of the recent research has been exploring ways to improve online communication, it is almost always undertaken with the assumption that online communication begins at a disadvantage to offline, or face-to-face (F2F), communication. But as discussed above, online education does more than merely replicate the F2F classroom experience. For instance, the "grammar" of CMC encourages online students to create optimal presentations of "self" in any way that suits them ([Walther, 1996](#)). Moreover, CMC participants ask more questions designed to understand the "inner self" of the other person than participants in face-to-face interactions ([Hancock & Dunham, 2001](#); [Pratt, et al., 1999](#)). Thus, even though many traditional verbal and nonverbal communication cues are filtered-out in the online setting, the very nature of CMC may foster deeper, more long-term social commitments among learners online than learners in F2F settings. Future researchers should continue to explore the ways in which such intense, long-term commitments may be leveraged to maximize cognitive learning benefits. The ways in which social dynamics in the online classroom are better than, or at least different from, social dynamics in F2F educational settings should also be explored.

Lastly, becoming a more effective "social network-builder" in online courses requires precise definitions and measurements of "community." Although several attempts to more fully define community (e.g., [Gergen 1991](#); [Jones, 1995](#); [Shell, 1995](#); and [Pratt, 1996](#)) and measure it ([Rovai & Lucking, 2000](#); [Rovai, 2002](#), [McAlister, 2000](#)) in the online setting have moved us much closer to our goal, much work is left to be done. Toward this end, more systematic investigation of students' experiences with online and offline CBAs may determine, for instance, which online CBAs are perceived as most effective or what combination of online and offline strategies produce the greatest benefits in terms of connectedness and reported sense of community among learners.

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